Second Research-Production Conference on Build-up Welding With Vibro-Arc

nical Institute, which examined the physical character of the optimal limits. Candidate of Technical Sciences V.B. Shlyapin (TsNII for railroad transportation) lectured on the automatic build-up welding with a vibro electrode under a layer of powder which guarantees thin layers of high quality without pores and cracks. Candidate of Technical Sciences, Docent K.V. Florov and Engineer N.S. Demidovich (Dnepropetrovsk Institute for Mining Industry imeni Artem) dealt with problems of vibro-arc welding of worn-out parts of machines used in the coal mining industry and with the mechanical processing of layers of the build-up weld. Engineer Ye.A. Obruchnikov (Moscow Institute for Mechanization and Electrification of Agriculture) spoke on the chances of using mechanical percussive generators for build-up welding of thin layers. Engineer V.A. Bautina (ChPI) reported about the work which was carried out by the welding department and the car repair shops in testing and projecting vibro-electric-arc heads. Candidate of Technical Sciences,

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Docent A.A. Spiridonov devoted his speech to some new constructions of heads which were developed by the Department for Welding Technology in the Ural Polytechnical Institute, and to some test results of vibro arc welding on carbon dioxides. Candidate of Technical Sciences, N.I. Dotsenko reported about studies to explore and introduce electro-percussive welding of car parts, especially of crank shafts, and about multi-electrode build-up welding. Engineer A.B. Fishbeyn lectured on the production of automatic machines for build-up welding with percussive arc in the Ordzhonikidze works in Chelyabinsk. Actual experiences applying vibro-arc welding were reported in the lectures of the engineers Ye.A. Bondar' (ChTZ), M.A. Kamalov (Chelyabavtoremzavod), V.I. Gololobova (Zlatoustovskiy Metallurgic Institute imeni Stalin), A.S. Patashnyy (Murmansk Ship Repair Works), G.D. Kobzov (ChPI), V.T. Gorbatyuk (Institute for Naval Engineers in Odessa), I.S. Kipnis (Technical administration of

Second Research-Production Conference on Build-up Welding With Vibro-Arc

the Kaliningrad economic district), and B.I. Dmitrechenskiy (TsBTI in the Krasnoyarsk sovnarkhoz.

These lectures show, that vibro-arc welding is successfully used in repairing parts in metal-cutting machines, of cars, of metallurgic, energetic, and other equipment of ship engines. The conference adopted a resolution calling for a further perfection of build-up welding with vibro-arc. It was found necessary to continue the research studying the layer of the build-up weld, the wearing resistance of the welded parts, the development of effective methods to prevent cracks. It was also thought to be important to study the limits and technology of build-up welding with alternating current and the build-up welding of alloyed steels, cast-iron, and non-ferrous metals. The resolution also points to the necessity of putting great emphasis on the development of research into build-up welding with a vibro electrode under a powder layer and with shielding gases; also stressed was the need of developing methods to alloy the build-up layer during the

SOV/135-59-8-21/24

Second Research-Production Conference on Build-up Welding With Vibro-Arc

welding. Automatic and semi-automatic build-up welders are to be further developed and perfected; special attention is given to machines using wires of big diameter, band electrodes, and multiple arcs.

ASSOCIATION: Chelyabinskaya oblastnaya sektsiya svarki (Chelyabinsk Oblast Welding Section)

Card 6/6

BAKSHI, O.A., kand. tekhn. nauk; RUDAKOV, A.S., dots.; SHAKHMATOV, V.M., inzh.

Stability of welding deformations. [Sbor st.] CHIPI no.16:5-13 '59. (MIRA 12:9)
(Welding--Testing) (Strains and stresses)

RAKSHI, O.A., kand. tekhn.nauk

Method of measuring the range of electrode weaving in automatic weaving-arc hard facing. [Sbor. st.] CHIPI no.16:45-50 '59. (MIRA 12:9)

(Hard facing—Testing) (Electric welding—Testing)

GALAKTIONOV, A.T.; DENISOV, Yu.A.; KOPYTOV, G.T.; MASLOV, Yu.A.; NIKONOV, I.P.; PETUNIN, I.V.; KOCHKVA , G.N.; KUZNETSOV, A.P.; LELEKO, N.M.; RAZIKOV, M.I.; SPESHKOV, V.V.; STEPANOV, B.V., STEPANOV, V.V.; kand. tekhn. nauk; SHELOMOV, B.Ye.; YUNYSHEV, G.P.; YES'KOV, K.A., dots., retsenzent; BAKSHI, O.A., dots., retsenzent; BEREZKIN, P.N., dots., retsenzent; PATSKEVICH, I.R.,dots., retsentzent; RUDAKOV, A.S., dots., retsenzent; FIZHBEYN, N.B., inzh., retsenzent; KHRUSTALEV, L.Ya., inzh., retsenzent; KRUTIKHOVSKIY, V.G., inzh., red. BOBROV, Ye.I., kand. tekhn. nauk, red. DUGINA, N.A., tekhn. red.

[Welding handbook] Spravochnik rabochego-svarshchika. Pod red. V.V.Stepanova. Moskva, gos. nauchno-tekhnizd-vo mashinostroit. lit-ry, 1960. 640 p. (MIRA 14:6)
(Welding)

82583

18.7100

S/148/60/000/006/008/010

AUTHORS: Povolotskiy, D. Ya., Bakshi, O. A.

TITLE: On the Effect of Internal Stress on Flake Formation in Steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, 1960, No. 6, pp. 124-130

TEXT: It was established by previous investigations that the hydrogen content in steel had a primary effect on flake formation. The effect of internal stress was considered to be secondary. The latest studies proved, however, that both the hydrogen content and the internal stress might be factors leading to the formation of flakes. There are few data available on changes in the internal stress of shaped rolled or forged steel work, resulting from heat treatment, preventing flake formation. Investigations were carried out into the effect of a special heat treatment on the magnitude and way of the distribution of internal stress of the I order. Moreover, an attempt was made to determine stress of the II order by X-ray structural analysis. Tests were performed with 18ХГТ(18KhGT) steel containing 0.22% C, 0.9% Mn, 0.23% Si, 1.07% Cr and 0.1% Ti. Blanks were rolled from annealed blooms and subjected to heat treatment and air cooling. Other blanks were air cooled directly after rolling without undergoing an

Card 1/2

On the Effect of Internal Stress on Flake Formation in Steel

intermediate heat treatment. The hydrogen content was determined by a method developed by A. N. Morozov, D. Ya. Povolotskiy, and V. F. Isayev. Internal stress was determined by N. V. Kalakutskiy's and N. N. Davidenko's methods. Linear measurements were made with a general-purpose microscope. The following results have been obtained: there were no flakes observed in blanks subjected to heat treatment after rolling. The absence of flakes was not due to the elimination of hydrogen but to the effect of a decrease in the internal stress. Tensile stress was not able to cause flake formation but created favorable conditions for this process. Thermal treatment of flake-sensitive steels caused considerable reduction of tensile stress; this is one of the main causes for the absence of flakes in steel work after annealing. The determination of stress of the II order performed by X-ray structural analysis showed considerable changes in tangential and radial stress. The values obtained are not reliable, although the presence of internal stress of the II order in blanks which were air cooled after rolling, is beyond any doubt. Stress, caused by the presence of hydrogen in steel, combined with internal stress, resulting from cooling and deformation, cause the formation of flakes. There are 2 sets of microphotos, 2 graphs and 8 references: 7 Soviet and 1 English.

Card 2/3

82583

S/148/60/000/006/008/010

On the Effect of Internal Stress on Flake Formation in Steel

ASSOCIATION: Chelyabinskiy politekhnicheskiy institut (Chelyabinsk Polytechnic Institute)

SUBMITTED: September 18, 1959

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Card 3/3

BAKSHI, Oskar Aleksandrovich; MIKHAYLOV, S.I., kand.tekhn.nauk, retsenzent; DUGINA, N.A., tekhn.red.

[Stresses and warpage in welding] Napriazheniia i koroblenie pri svarke. Moskva, Mashgiz, 1961. 69 p. (Nauchno-populiarnaia biblioteka rabochego-svarshchika, no.4). (MIRA 15:4)
(Welding—Defects) (Thermal stresses)

BAKSHI, O.A., kand.tekhn.nauk; SOLOVSKOY, V.M., inzh.

Research in the field of mechanization of welding carried out by the Chelyabinsk Research Institute on Technological Processes in the Manufacture of Machinery. Svar. proizv. no.10:17-21 O '61. (MIRA 14:9)

(Welding—Equipment and supplies)

27934 S/135/61/000/010/003/008
A006/A101

1.2300 1573

AUTHORS: Bakshi, O. A., Candidate of Technical Sciences, Solovskoy, V. M., Engineer

TITLE: Achievements of Chelyabinsk NIITEKhMASh in the field of mechanizing the welding practice

PERIODICAL: Svarochnoye proizvodstvo, no. 10, 1961, 20

TEXT: Together with the Plant imeni S. Ordzhonikidze, the Scientific Research Institute of Machinebuilding Technology of the Chelyabinsk Sovnarkhoz (NIITEKhMASh) has investigated and accomplished the method of pulsation-arc (vibration arc) building-up and welding with the use of KUMA-5 (KUMA-5) automatic machines and a modernized mandrel. Metals 0.6 - 2.0 mm thick were welded by this method in a cooling liquid jet, under flux, and in carbon dioxide. As a result of the study it was found that: 1) hot rolled and cold rolled low carbon steels, 0.6 - 2.0 mm thick, can be welded by the pulsation arc process without supply of liquid using (Sv-08) wire up to 2.0 mm in diameter; 2) Pulsation arc welding of thin low carbon steel produces slight deformations of the welded part, a reduced area of heat-affected zone and seams with a 0.6 - 2 mm leg, at

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relatively high welding speed. The pulsation arc welding machine is simple in operation. 3) The vibration of the welding wire tip at 100 cycles frequency and at a constant feed rate, assures satisfactory excitation of the arc and its stable burning; the metal is transferred by small portions 4) Satisfactory formation of the weld joint is obtained at 80 - 100 m/h welding speed for 0.6 - 2.0 mm thick metal. 5) The low voltage АНД-1500/750 (AND-1500/750) generator is recommended as a power supply source. An additional inductive reactance in the form of a throttle with sectional winding is connected to the welding circuit. There is 1 figure.

Card 2/2

S/125/62/000/007/005/012
D040/D113

AUTHORS: Bakshi, O.A., and Klykov, N.A.

TITLE: Investigation of temperature fields and residual stresses when arc welding a hole in flat steel sheets

PERIODICAL: Avtomaticheskaya svarka, no. 7, 1962, 31-35

TEXT: The described experiments confirmed the feasibility of theoretically calculating residual stresses in steel sheets around holes filled by arc welding. The calculation method, previously suggested by Bakshi and based on the theoretical assumption that the linear heat source is immobile, is explained, and the experimental techniques described. The material used was 8 mm thick 500 x 100 mm sheets of annealed low-carbon steel, with one drilled hole of 8 mm diam in the center. The holes were filled by automatic arc welding with an immobile welder and a time relay ensuring that the time of arc burning was constant. The mean heat quantity introduced into the sheet at given conditions was measured, and the liberating arc energy oscillographed; the temperature in spots at different distances from the hole was measured by thermocouples. The distribution of radial

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S/125/62/000/007/005/012
D040/D113

Investigation of temperature .....

and tangential residual stresses was measured by applying radial contracting forces to the contour of the hole, and verified using an electric resistance strain gage. Formulas of the theory of elasticity were employed. The obtained data are related to the thermic cycles in different points on the sheet. The distribution of residual stresses and plastic deformations are presented in graphs and closely coincide with the theoretical values. There are 5 figures.

ASSOCIATIONS: Chelyabinskiy politekhnicheskiy institut (Chelyabinsk Polytechnic Institute) (O.A. Bakshi); Nauchno-issledovatel'skiy i proyektno-tekhnologicheskiy institut avtomatizatsii i mekhanizatsii mashinostroyeniya (Scientific Research and Design and Planning Technological Institute for the Automation and Mechanization of Machinebuilding) (N.A. Klykov)

SUBMITTED: July 31, 1961

Card 2/2

BAKSHI, O.A., kand.tekhn.nauk; SHRON, R.Z., inzh.

Strength during the static tension of weld joints with a soft padding. Svar.proizv. no.5:6-10 My '62. (MIRA 15:12)

1. NIPTIAMMASh Chelyabinskogo soveta narodnogo khozyaystva.
(Welding--Testing)

BAKSHI, O.A., kand.tekhn.nauk; SOLOVSKOY, V.M., inzh.

Welding innovator's day in Chelyabinsk. Svar.proizv. no.7:41 Jl '62. (MIRA 15:12)
(Chelyabinsk—Welding—Technological innovations)

BAKSHI, O.A., kand.tekhn.nauk; SHATOV, A.A., insh.

University on theoretical problems on welding in Chelyabinsk, staffed with volunteers. Svar. proizv. no.8:46 Ag '62. (MIRA 15:11)

(Chelyabinsk--Welding--Study and teaching)

BALZHI, M.F.; BEREZKIN, P.N.; GOL'DSHTEYN, Ya.Ye.; GAL'PERIN, Ye.B.; YEDLICHKO, V.V.; KERAS, A.F.; LEKUS, I.D.; POTEKUSHIN, N.V.; POZDNYSHEV, V.M.; SUBBOTIN, N.A.; SAVINTSEV, R.I.; TAMAROVSKIY, V.M.; SHEREMET'YEV, A.D.; BAKSHI, O.A., kand. tekhn. nauk, retsenzent; BONDIN, Ye.A., inzh., retsenzent; BOYKO, F.I., inzh., retsenzent; VASIN, Yu.P., inzh., retsenzent; LAZAREV, A.A., inzh., retsenzent; SOROKIN, A.I., inzh., retsenzent; KON'KOV, Arkadiy Sergeyevich, dots., red.; DUGINA, N.A., tekhn. red.

[Economy of metals in the machinery industry]Ekonomiia metallov v mashinostroenii. [By]M.F.Balzhi i dr. Moskva, Mashgiz, 1962. 235 p. (MIRA 16:2)
(Machinery--Design and construction)
(Metals, Substitutes for)

S/032/63/029/002/027/028
B101/B186

AUTHORS: Bakshi, O. A., Kul'nevich, B. G., and Ovchinnikov, V. V.

TITLE: Bending tests on samples with large cross sections

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 2, 1963, 240

TEXT: A 500 t hydraulic press (Fig.) was adapted for bending tests of welds having a cross section of 120·120 mm and a length of 800 mm. The supports (2) are fastened to frame (1). The left support carries the crosshead (3) the hydraulic cylinder (4) of internal diameter 450 mm and the ram (5) with length of path 400 mm, rate of feed 20 mm/min. Crosshead (6) is fastened to the right support. (3) and (6) are connected by bars and fastened by pins (8). Knife-edge (10) which loads the sample is mounted on ram (5) for the bending test of sample (9) and the supporting plate (11) and baffle (12) were mounted on (6). The measuring device consists of the channel beam (13) and the rod (14) whose movement is transmitted by the thread (15) over the system of pulleys (16) to the graduated drum (17), the thread being stretched by the weight (18). There is 1 figure.

ASSOCIATION: Chelyabinskiy politekhnicheskiy institut (Chelyabinsk Polytechnic Institute)

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Bending tests on samples with...

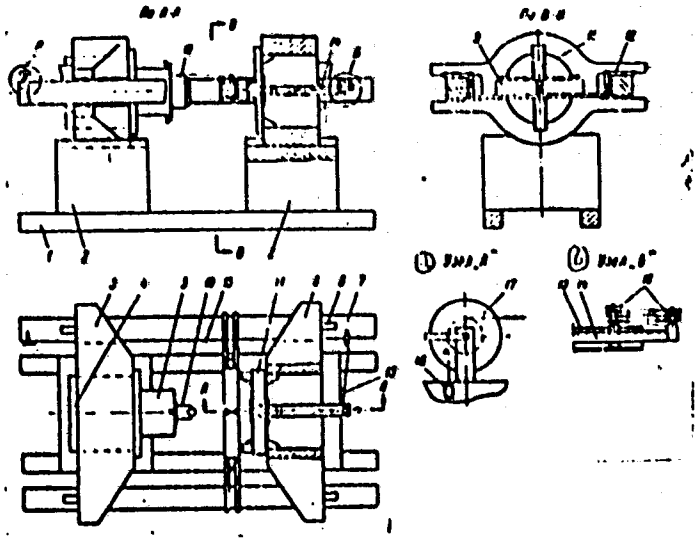
Fig. Schematical drawing of the press with equipment for the bending test.

Legend: (a) unit "A"; (b) unit "B".

Card 2/3

S/032/63/029/002/027/028
B101/B186

Bending tests on samples with...



Card 3/3

SHRON, R.Z., inzh.; BAKSHI, O.A., kand.tekhn.nauk

Evaluating the strength of welded joints with a soft interlayer. Svar. proizv. no.9:11-14 S '62. (MIRA 15:12)

1. NIPTIAMMASh Chelyabinskogo soveta narodnogo khozyaystva (for Shron). 2. Chelyabinskiy politekhnicheskiy institut (for Bakshi).
(Welding—Testing) (Strains and stresses)

BAKSHI, O.A., kand.tekhn.nauk; MONOSHKOV, A.N., inzh.

Resistance of welded joints with a soft heat zone to impact tension. Svar. proizv. no.9:8-10 S '63. (MIRA 16:10)

1. Cholyabinskiy politekhnicheskiy institut.

OKERBLOM, N.O.; BAKSHI, O.A.; SHRON, R.Z.

Effect of the mechanical dissimilarity of weldments on their efficiency. Trudy LPI no.229:5-15 '63. (MIRA 17:9)

BAKSHI, O.A., kand. tekhn. nauk

Effect of the heterogeneity of the mechanical properties of welded joints on their efficiency under torsion. Svar. proizv. no.8:3-7 Ag '64. (MIRA 17:9)

1. Chelyabinskiy politekhnicheskiy institut.

BAKSHI, O.A.; MONOSHKOV, A.N.

Use of the "force - time" oscillogram in determining the effect of deformation due to impact. Zav. lab. 30 no.9:1122-1123 '64. (MIRA 18:3)

1. Chelyabinskiy politekhnicheskiy institut.

BAKSHI, O.A., kand. tekhn. nauk; KUPERSHLYAK-VITENKOVICH, G.M., inzh.

Deformation of butt welds under pulsation stress application.
Svar. proizv. no.1:10-13 Ja '65. (MIRA 18:3)

1. Chalyabinskiy politekhnicheskiy institut.

POVOLOTSKIY, D.Ya.; BAKSHI, O.A.

Hydrogen brittleness of steel. Izv.vys.ucheb.zav.; chern.met. 8 no.6:54-59 '65. (MIRA 18:8)

1. Chelyabinskiy politekhnicheskiy institut.

BAKSHI, O.A.; KACHANOV, L.M.

Stressed state of a plastic interlayer in axisymmetric deformation.
Izv. AN SSSR. Mekh. no.2:134-137 Mr-Ap '65.
(MIRA 18:6)

BAKSHI, G.A., kand. tekhn. nauk; KUPERSHLYAK-YUZEFOVICH, G.M., inzh.

Plastic properties of deposited austenitic metal and their anisotropy. Svar. proizv. 12:5-7 D '63. (MIRA 18:9)

1. Chelyabinskiy politekhnicheskiy institut (for Bakshi).
2. Nauchno-issledovatel'skiy i proyektno-tekhnologicheskiy institut avtomatizatsii i mekhanizatsii mashinostroyeniya Yuzhno-Ural'skogo soveta narodnogo khozyaystva (for Kupershlyak-Yuzefovich).

BAKSHI, O.A., kand. tekhn. nauk

Efficiency of welded joints with a soft interlayer under the effect of torsion. Svar. proizv. no.5:1-4 My '64. (MIRA 18:11)

1. Chelyabinskiy politekhnicheskiy institut.

BAKSHI, O.A., kand. tekhn. nauk, dotsent; KLYKOVA, G.I., inzh.

Investigating volume tric welding stresses in butt welds of thick parts with various geometry of edge dressing. Izv. vys. ucheb. zav.; mashinostr. no.5:187-194 '65.

(MIRA 18:11)

1. Chelyabinskiy politekhnicheskiy institut.

BAKSHI, O.A., [illegible]

Strength of mechanically heterogeneous welded joints under impact torsion. Svar. proizv. no.7:28-31 Jl '65. (MIRA 18:8)

1. Chelyabinskiy politekhnicheskiy institut.

L 22026-66 EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k) JD/HM
ACC NR: AP6007918 UR/0125/66/000/002/0020/0024

AUTHOR: Bakshi, O. A.; Shron, R. Z.

ORG: [Bakshi] Chelyabinsk Polytechnic Institute (Chelyabinskiy politekhnicheskiy institut); [Shron] Eastern Affiliate of the All-Union Heat Engineering Institute (Vostochnyy filial Vsesoyuznogo teplotekhnicheskogo instituta)

TITLE: Brittle fractures of welded joints

SOURCE: Avtomaticheskaya svarka, no. 2, 1966, 20-24

TOPIC TAGS: material fracture, brittleness, yield strength, weld evaluation

ABSTRACT: The effect of weld sectors with lower yield strength on the character of fracture of welded joints is examined. Such sectors are present in many welds due to the nonuniformity of their mechanical properties and they are more plastic than the other weld interlayers and, since, as a rule, plastic metal subjected to uniform tensile stresses undergoes brittle fracture, these sectors may, if sufficiently thin, be a factor in the brittle fracture of welded joints. The greatest danger of brittle fracture along a sector of this kind arises when the operating conditions of the welded joint are such that it is exposed to tensile or bending stresses. The danger of brittle fracture along the more plastic weld sector increases with decrease in the relative thickness of the sector; this indicates a gradual ductile-to-brittle tran-

Card 1/2 UDC: 621.791.05.004.74

L 22026-66
ACC NR: AP6007918

sition of the character of fracture of this sector. Thus, the most dangerous -- from the standpoint of brittle fracture -- is the case where the difference between the yield points of the metal of the more plastic sector and the other sectors of the weld is large and the stress-strain diagram of the metal of the plastic sector approximates the diagram of an ideally plastic metal. Plastic deformation (work hardening) is one way of relieving the stressed state and thus reducing this danger. In cases of intricately shaped welds, such as X-welds, the most dangerous -- from the standpoint of the formation of a brittle crack -- is the weld root. In such cases an increase in weld-root clearance may be recommended in order to reduce the danger of brittle fracture. Yet another major means of increasing the reliability of performance of welded joints with a relatively narrow softer sector is the build-up with a metal having a high ductility margin (e.g. austenitic metal); this applies only to the spots most susceptible to brittle cracking (e.g. weld root), with the other parts of the weld being built-up with less ductile metal. Orig. art. has: 5 figures.

SUB CODE: 11, 13/ SUBM DATE: 26Dec64/ ORIG REF: 013/ OTH REF: 001

Card 2/2 PB

ACC NR: AR6035108 SOURCE CODE: UR/0137/66/000/008/E013/E013

AUTHOR: Bakshi, O. A.

TITLE: The state of stress of soft interlayers in welds during elongation and compression

SOURCE: Ref. zh. Metallurgiya, Abs. 8E81

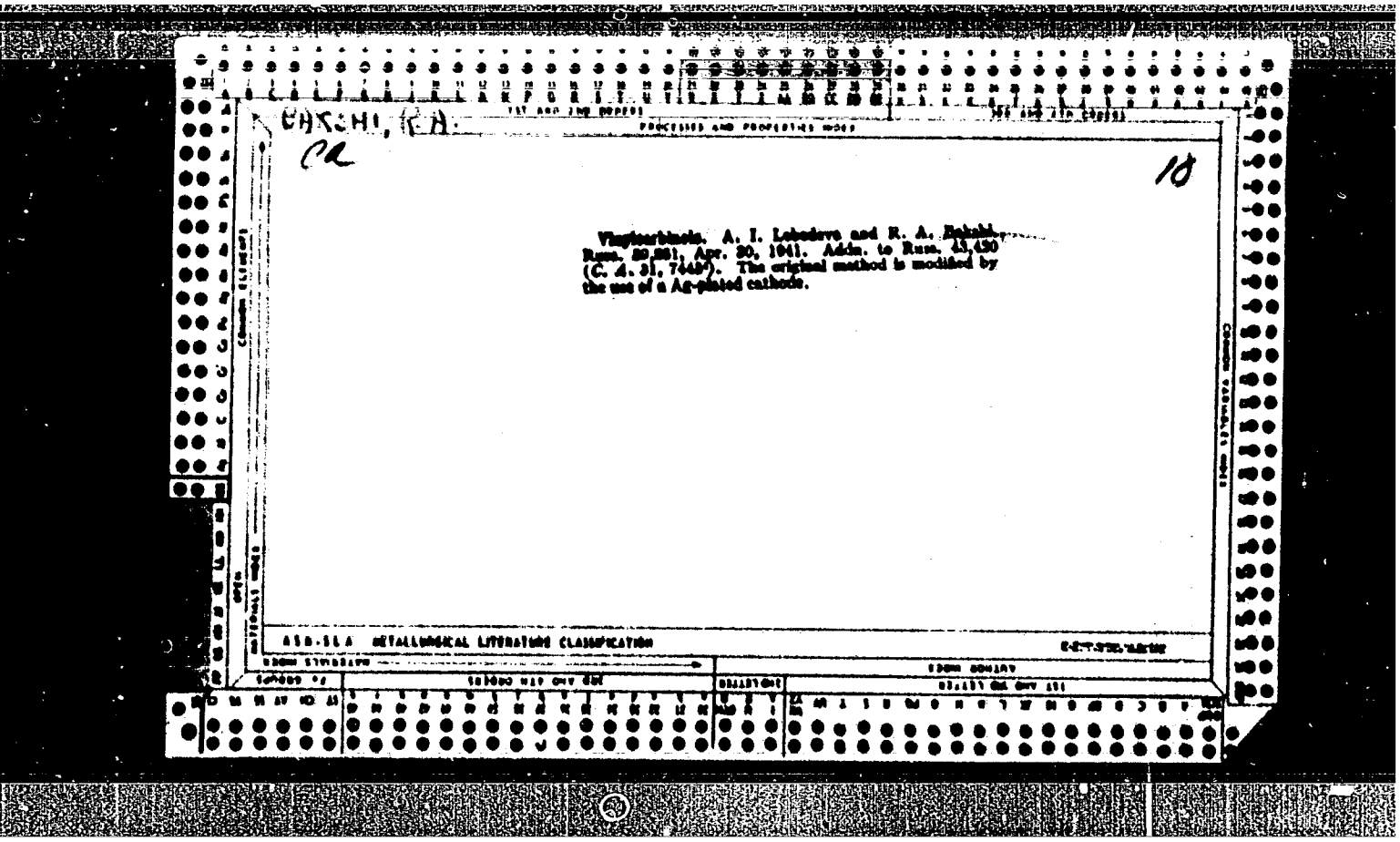
REF SOURCE: Tr. Chelyab. politekhn. in-ta, vyp. 33, 1965, 5-26

TOPIC TAGS: elongation, weld, stress

ABSTRACT: The author compares variations for solving problems related to the state of stress of soft interlayers during stretching (compression) under conditions of axisymmetric and plane deformation. Appropriate areas for using various solutions are established. The effect is analyzed of the type of deformation and the relative thickness of the interlayer on its state stress and load capacity.
V. Fomenko. [Translation of abstract] [NT]

SUB CODE: 11, 13/

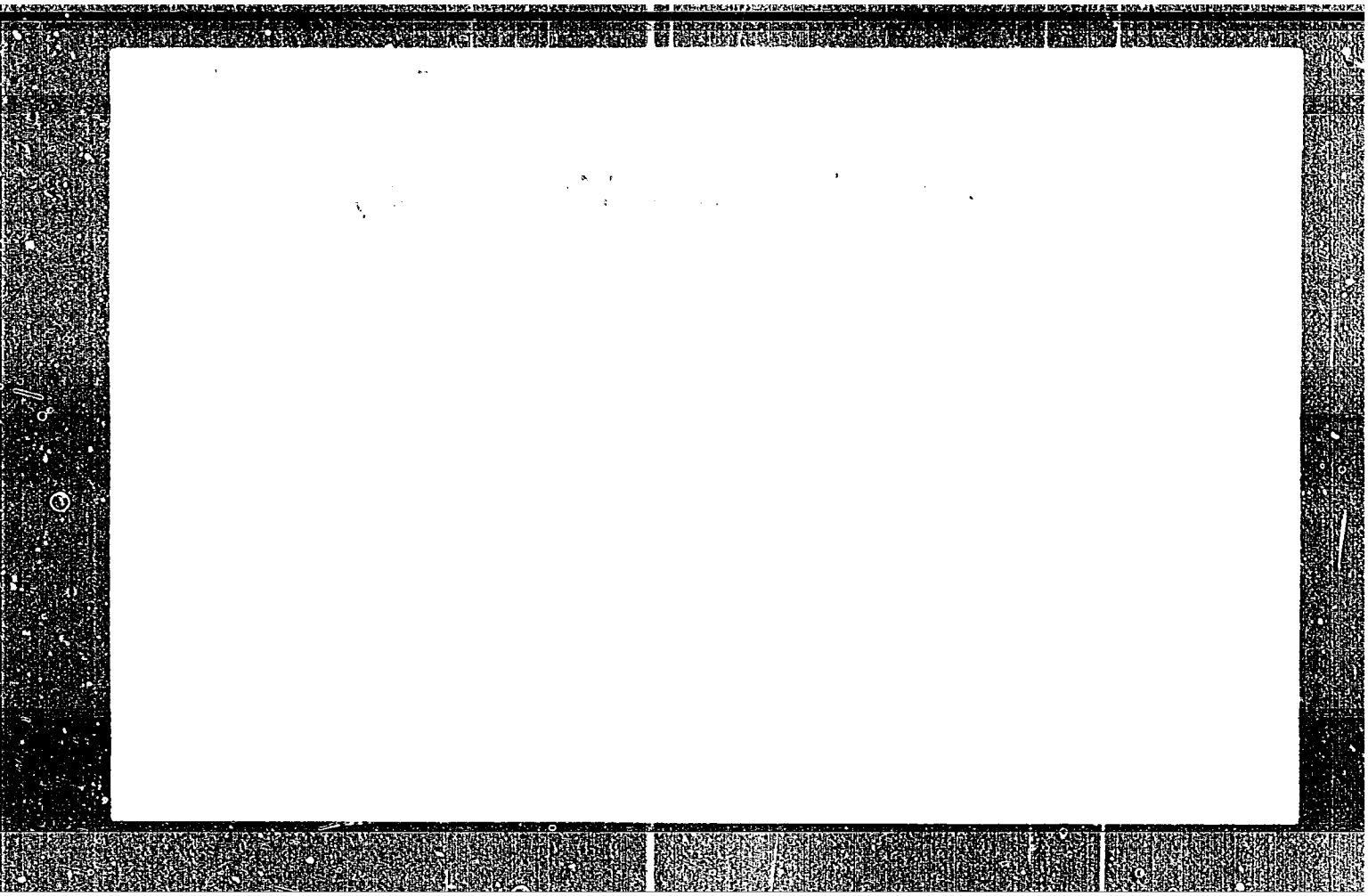
Card 1/1 UDC: 621.791.001:539.4.014.13



APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103120012-1"

MATVEYEV, V.A.;GRODSKIY, Ya.S.;BAKSHI, R.A.

Improving individual elements of gas-producing stations. Gaz. prom. no.6:11-15 Je '56. (MLRA 9:12)
(Gas producers)



APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103120012-1"

BAKSHI, R.A.; KANTUSHOV, S.A.

Control of deposition in circulating water supply systems for gas purification. Stal' 23 [i.e. 24] no.4:378-379 Ap '64. (MIRA 17:8)

1. Yuvenergometallurgprom.

5(4)

AUTHORS: Bakshi, Yu. M., Gel'bshteyn, A. I., Temkin, M. I.

SOV/20-126-2-24/64

TITLE: The Equilibrium of the Synthesis of Ethyl Alcohol (Ravnovesiye sinteza etilovogo spirta)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 314-317 (USSR)

ABSTRACT: The degrees of transformation attainable in the hydration of ethylene in the gaseous phase depend on the equilibrium $C_2H_4(gas)+H_2O(gas)=C_2H_5OH(gas)$. The gases participating in this equilibrium must never be considered to be perfect in the case of the industrial realization of this reaction. For this and other reasons the authors carried out an experimental investigation of the above-mentioned equilibrium, and the results obtained by these investigations are discussed in the present paper. The investigations were carried out in a proton reactor made of stainless steel. The catalyst in this case was silica-gel (~40% H_3PO_4 of the weight of the catalyst). Carrying out these experiments is described. The equilibrium was attained from two sides, and results were found to be in practical agreement. The experimental results are shown by a rather voluminous table. The velocities referred to the volume

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were calculated as the ratio between the ethylene yields per hour (0°, 1 atm) and the volume of the catalyzer layer. The average values of $K_P = \frac{P_{C_2H_5OH}}{P_{C_2H_4} P_{H_2O}}$ determined by means of experiments carried out with mixtures of alcohol and water are also shown by a table. In this connection it holds that $P_{C_2H_5OH} = PN_{C_2H_5OH}$ (P - total pressure, $N_{C_2H_5OH}$-molar fraction of C_2H_5OH). In the case of slight deviations from the perfect state, the equation of state of a gas mixture may be used: $V = \frac{RT}{P} + B$. Here V denotes the molar volume of the mixture, and B - the second virial coefficient, which depends upon the state of the mixture: $B = \sum_i \sum_j B_{ij} N_i N_j$. The quantities $B_{ij} = B_{ji}$ are functions of T. For the "activity coefficient" $\gamma_i = \frac{f_i}{N_i P}$ it holds that $\ln \gamma_i = \frac{2B_i - B}{RT} P$ with $B_i = \sum_j B_{ij} N_j$. With

The Equilibrium of the Synthesis of Ethyl Alcohol SOV/20-126-2-24/64

$\ln K_f = \sum_i \nu_i \ln f_i$ (where ν_i denote the stoichiometric coefficients)

there follows $\ln K_f = \frac{2\sum \nu_i B_i - B\sum \nu_i}{RT} P$. The quantity $\frac{2\sum \nu_i B_i - B\sum \nu_i}{RT}$ is a function of the state and of temperature, and in the case of T being given, depends only on the ratio $\frac{N_{H_2O}}{N_{C_2H_4}}$. $\ln K_p$ must depend linearly on P. The calculations carried out in accordance with the methods discussed in the present paper show satisfactory agreement with the experiment, especially at high temperatures. There are 2 figures, 2 tables, and 23 references, 8 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Scientific Research Institute imeni L. Ya. Karpov)

PRESENTED: January 26, 1959 by S. S. Medvedev, Academician

SUBMITTED: January 24, 1959

Card 3/3

S/020/60/132/01/41/064
B004/B007

AUTHORS: Bakshi, Yu. M., Gel'bshteyn, A. I., Temkin, M. I.

TITLE: Additional Data on the Equilibrium of the Synthesis of Ethyl Alcohol

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 1, pp. 157-159

TEXT: In Ref. 1 the authors published the data on the equilibrium of the reaction (1) C_2H_4 gas + H_2O gas = C_2H_5OH gas at pressures of up to 81 atm. They found the linear dependence of log K_p on total pressure, extrapolated log K_p for P = 0, and obtained equation (2): $\log K_f = 2093/T - 6.304$. In the present paper they report on the dependence of the logarithm of the coefficient K_γ on P. ($K_\gamma = \gamma_{C_2H_5OH}/\gamma_{C_2H_4}\gamma_{H_2O}$; γ - activity coefficient). The data is given in table 1. Further, equation (5) was derived from the dependence $K_p = K_f/K_\gamma$. Table 2 compares the values of K_p calculated from this equation with the experimentally determined values. The degree of equilibrium α of the conversion of ethylene into alcohol,

Card 1/2

Additional Data on the Equilibrium of the Synthesis of Ethyl Alcohol

S/020/60/132/01/41/064
B004/B007

determined according to equation (6) with $N_{H_2O}/N_{C_2H_4}$ = 1 is given in table 3, and in table 4 α is given for 290° for a different ratio between water and ethylene. Calculation of the heat effect of reaction (1) gives ΔH = -5263 cal at 300° and 80 atm, whereas ΔH^0 = -9370 cal. This dependence of ΔH on P must be taken into account for technical calculations. There are 4 tables and 1 Soviet reference.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Institute of Physical Chemistry imeni L. Ya. Karpov)

PRESENTED: December 30, 1959, by S. S. Medvedev, Academician

SUBMITTED: December 30, 1959

Card 2/2

80189
S/020/60/132/02/39/067
B004/B007

5.3200

AUTHORS: Gel'bshteyn, A. I., Bakshi, Yu. M., Temkin, M. I.

TITLE: The Kinetics of the Hydration of Ethylene in the Vapor Phase on a Phosphoric Acid Catalyst

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 2, pp. 384-387

TEXT: The authors investigated the industrially utilized reaction $C_2H_{4(gas)}$ + $+ H_2O_{(gas)} = C_2H_5OH_{(gas)}$ (1). As catalyst, phosphoric acid applied to silica gel was used. The authors proceeded from the assumption that the reaction develops in a way similar to the previously (Ref. 1) investigated hydration of C_2H_2, and that only its reversibility must be taken into account. Scheme (2) is written down for reaction (1), and it is found that the transformation of the π-complex $H_2C\overset{H^+}{\ddagger}CH_2$ into the carbonium ion $H_3C\text{-}C^+H_2$ is the stage that limits the reaction rate. From scheme (2) equation (3) is derived for the direct reaction,

Card 1/3

after which equation (4) is obtained with some simplification: $v_1 = k_1 h_o P_{C_2H_4}$ (v_1 = rate of direct reaction, k_1 = reaction constant, h_o = acidity of H_3PO_4, $P_{C_2H_4}$ = partial ethylene pressure). In a similar manner, equation (5) is obtained for the rate of reversible reduction, equation (7) is derived for the total reaction, and finally equation (9) is written down for the constant k of the total reaction. Table 1 gives the experimental data for absolute pressures P between 36 and 81 atmos and a reaction temperature of 290°C. The values of k remain constant within the limits of experimental errors. The low degree of dependence of the alcohol yield upon P_{H_2O} proves the zeroth order of the reaction with respect to water, which does not participate in the limiting stage of the reaction. For technical purposes the reaction rate is represented as an explicit function of P_{H_2O}. For the reaction constant k' one finds: $k' = kP_{H_2O}^{1/2}$ (15). The values of k' given in Table 1 are approximatively constant.

80489

The Kinetics of the Hydration of Ethylene in the Vapor Phase on a Phosphoric Acid Catalyst

S/020/60/132/02/39/067
B004/B007

For the temperatures of 270, 290, 310, and 330°C as well as P_{H_2O} = 30 atmos, the average values of k_1 and k' are given in Table 2. As in the adsorption of C_2H_4 and C_3H_6 in H_2SO_4 (Ref. 9), and in the hydration of C_2H_2 (Ref. 1) also in this case the transformation of the π-complex into the carbonium ion is the limiting stage. There are 2 tables and 9 references, 7 of which are Soviet.

4

ASSOCIATION: Fizicheskо-khimicheskiy institut im. L. Ya. Karpova (Institute of Physical Chemistry imeni L. Ya. Karpov)

PRESENTED: December 30, 1959, by V. A. Kargin, Academician

SUBMITTED: December 21, 1959

Card 3/3

GEL'BSHTEYN, A.I.; STROYEVA, S.S.; KUL'KOVA, N.V.; BAKSHI, Yu.M.; LAPIDUS, V.L.

Mechanism of the catalytic reactions in the partial oxidation and oxidative ammonolysis of propylene in the presence of MoO_3--Bi_2O_3. Neftekhimiia 5 no.1:118-125 Ja-F '65. (MIRA 18:5)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni Karpova, Moskva.

GEL'BSHTEYN, A.I.; BAKSHI, Yu.M.; STROYEVA, S.S.; KUL'KOVA, N.V.; LAPIDUS, V.L.; SADOVSKIY, A.S.

Kinetics and mechanism of oxidative ammonolysis and partial oxidation of propylene on bismuth-molybdenum catalysts. Kin. i kat. 6 no. 6:1025-1032 N-D '65 (MIRA 19:1)

1. Fiziko-khimicheskiy institut imeni Karpova. Submitted July 28, 1964.

L 08101-67 EWT(m) DJ

ACC NR: AP6029987 SOURCE CODE: UR/0413/66/000/015/0194/0195

INVENTOR: Baksht, Yu. V.

ORG: none

TITLE: Pneumohydraulic shock absorber. Class 62, No. 184145

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 194-195

TOPIC TAGS: shock absorber, mechanical shock resistance, hydraulic device, hydraulics

ABSTRACT: An Author Certificate has been issued for a pneumohydraulic chassis shock absorber consisting of a cylinder (with a plunger, containing calibrated openings for by-passing fluid, and a piston on the end) and a hollow rod. To avoid high chassis stresses when encountering an obstacle, above the plunger's butt-end piston is a second piston with a smaller diameter than the first one, which interacts with a floating, spring-supported cylinder. This cylinder has calibrated openings in the upper and lower part of its wall, and its upper housing is connected with the plunger's upper housing through a channel in the second piston, which is equipped with an annular valve; the lower housing is connected via an aperture in the side wall of the plunger with the shock-absorber-rod housing. At the base of the cylinder is a flange into which is fitted an annular spring-supported rest which interacts with the shock absorber's inner rod jut. [KT]

SUB CODE: 13/ SUBM DATE: 25Nov64

YAGUDIN, M.; BAKSHI-SARACH, V., starshiy inzhener

Mechanizing manual operations at Zaporozh'ye enterprises.
Sots. trud 6 no.12:114-119 D '61. (MIRA 14:11)

1. Zamestitel' nachal'nika proizvodstvenno-tekhnicheskogo otdela Zaporozhskogo sovnarkhoza (for Yagudin). 2. Proizvodstvenno-tekhnicheskiy otdel Zaporozhskogo sovnarkhoza (for Bakshi-Sarach).

(Zaporozh'ye Province--Automation)

PIS'MAN, I.I.; BAKSHI-ZADE, A.A.; GADZHI-ZADE, F.S.

Comparing catalysts of hydration of ethylene to ethyl alcohol.
Azerb. neft. khoz. 38 no.2:38-39 F '59. (MIRA 12:5)
(Catalysts) (Hydration)

DORMAN, A.I.; LESHCHINSKIY, L.Z.; KIYASHKO, V.S.; BAKSHINOV, A.S.; LUKASHOVA, A.N.

Pneumatic delivery of specimens of cast iron, steel, and slag to the chemical laboratory. Metallurg 9 no.10:12-13 O '64 (MIRA 18:1)

1. Magnitogorskiy metallurgicheskiy kombinat.

BAKSHINSKAYA, R. Ye.

BAKSHINSKAYA, R. Ye.: "Forensic-medical investigation in cases of strangulation by the hands." Khar'kov Medical Inst. Stalino, 1956. (Dissertation for the Degree of Candidate in Medical Sciences)

Source: Knizhnaya letopis' No. 28 1956 Moscow

ZAKHAROVA, O.A.; BAKSHINSKAYA, R.Ye.

Case of multiple aneurysms of the vessels of the base of the brain. Sud.-med.ekspert. 5 no.4:13-15 O-D '62. (MIRA 15:11)

1. Kafedra patologicheskoy anatomii (zav. - prof. Ye.A.Dikshteyn) i kafedra sudebnoy meditsiny (zav. - dotsent B.N.Zorin) Donetskogo meditsinskogo instituta.

(INTRACRANIAL ANEURYSMS)

[illegible], [illegible]

Diagnosis of [illegible] in [illegible] practice; preliminary report. Sud.-med. ekspert. 7 no.3:[illegible] Jl-S '64.

(MIRA 17:10)

1. Kafedra sudebnoy meditsiny (zav.- dotsent [illegible]) i kafedra nervnykh bolezney (zav. - prof. [illegible]) Donetskogo meditsinskogo instituta.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103120012-1

YANUSHKEVICHUS, Z.I. [Januškevičius, Z.I.], prof.; BAKSHIS, I.V. [Bakšys, I.V.], kand.med.nauk

Relationship between the Itsenko-Cushing syndrome and pulmonary cancer. Klin.med. 39 no.4:98-100 '61. (MIRA 14:4)

1. Iz kafedry gospital'noy terapii (zav. - prof. Z.I. Yanushkevichus) Kaunasskogo meditsinskogo instituta.
(LUNGS--CANCER) (CUSHING'S SYNDROME)

"The State of Blood Circulation in a Patient with Suppurative Diseases of the Lungs and Certain Contradictions to Surgical Treatment from the Point of View of the Cardiovascular System"

Vestnik Khirurgii, No 9, 1955
S 782

BAKSHIS, V.P.

Blood circulation in the postoperative period following radical surgery of lungs. Khirurgiia no.12:21-26 D'55. (MLRA 9:7)

1. Iz kafedry 1-y fakul'tetskoy terapevticheskoy kliniki (nach.-prof. V.A.Beyer) i kafedry 2-y fakul'tetskoy khirurgicheskoy kliniki (nach.-deystvitel'nyy chlen AMN SSSR prof. P.A.Kupriyanov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.

(LUNGS, surg.
postop. blood circ.)
(POSTOPERATIVE CARE
postop. blood circ. after lung surg.)
(BLOOD CIRCULATION
postop., in lung surg.)

BAKSHIS, V.P.

BURAKOVSKIY, V.I., kandidat meditsinskikh nauk (Leningrad, Botkinskaya ul., d. 5/7, kv.145); BAKSHIS, V.P.

Pericarditis following pneumonectomy. Vest.khir. 75 no.3:25-30 Ap '55. (MLRA 8:7)

1. Iz 2-y Fakul'tetskoy khirurgicheskoy kliniki (nach.-prof. P.A. Kupriyanov) i 1-y fakul'tetskoy terapevticheskoy kliniki (nach. prof. V.A.Beyer) Voyenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova.

(LUNGS, surgery,
pneumonectomy, postop. pericarditis)
(PERICARDITIS, etiology and pathogenesis,
postop. after pneumonectomy)

BAKSHIS, V.P.

Blood circulation in patients with suppurative diseases of the lungs and some counterindications to surgery from the point of view of the cardiovascular system. Vest.khir.76 no.9:49-54 O '55. (MLRA 9:1)

1. Iz 1-y fakul'tetskoy terapevticheskoy kliniki (nach-prof. V.A.Beiyer) i iz 2-y fakul'tetskoy khirurgicheskoy kliniki (nach-prof. P.A.Kupriyanov) Voyenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova.

(LUNGS, dis.
suppurative, blood circ. in, counterindic. for surg.)
(BLOOD CIRCULATION, in various dis.
suppurative dis. of lungs, counterindic. for surg.)

BAKSHIS, V.P., kandidat meditsinskikh nauk (Leningrad)

Blood circulation in remote periods after total or partial pneumonectomy. Klin.med. 34 no.11:13 -18 N '56. (MLRA 10:2)

1. Iz pervoy fakul'tetskoy terapevticheskoy kliniki (nach. - prof. V.A.Beyyer) i iz vtoroy fakul'tetskoy khirurgicheskoy kliniki (nach. - deystvitel'nyy chlen AMN SSSR - prof. P.A.Kupriyanov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.

(PNEUMONECTOMY, compl.
cardiovasc. disord. in remote postrop. periods)
(CARDIOVASCULAR DISEASES, etiol. and pathogen.
pneumonectomy)

BAKSHIS, V.P., kand.med.nauk, mayor meditsinskoy sluzhby

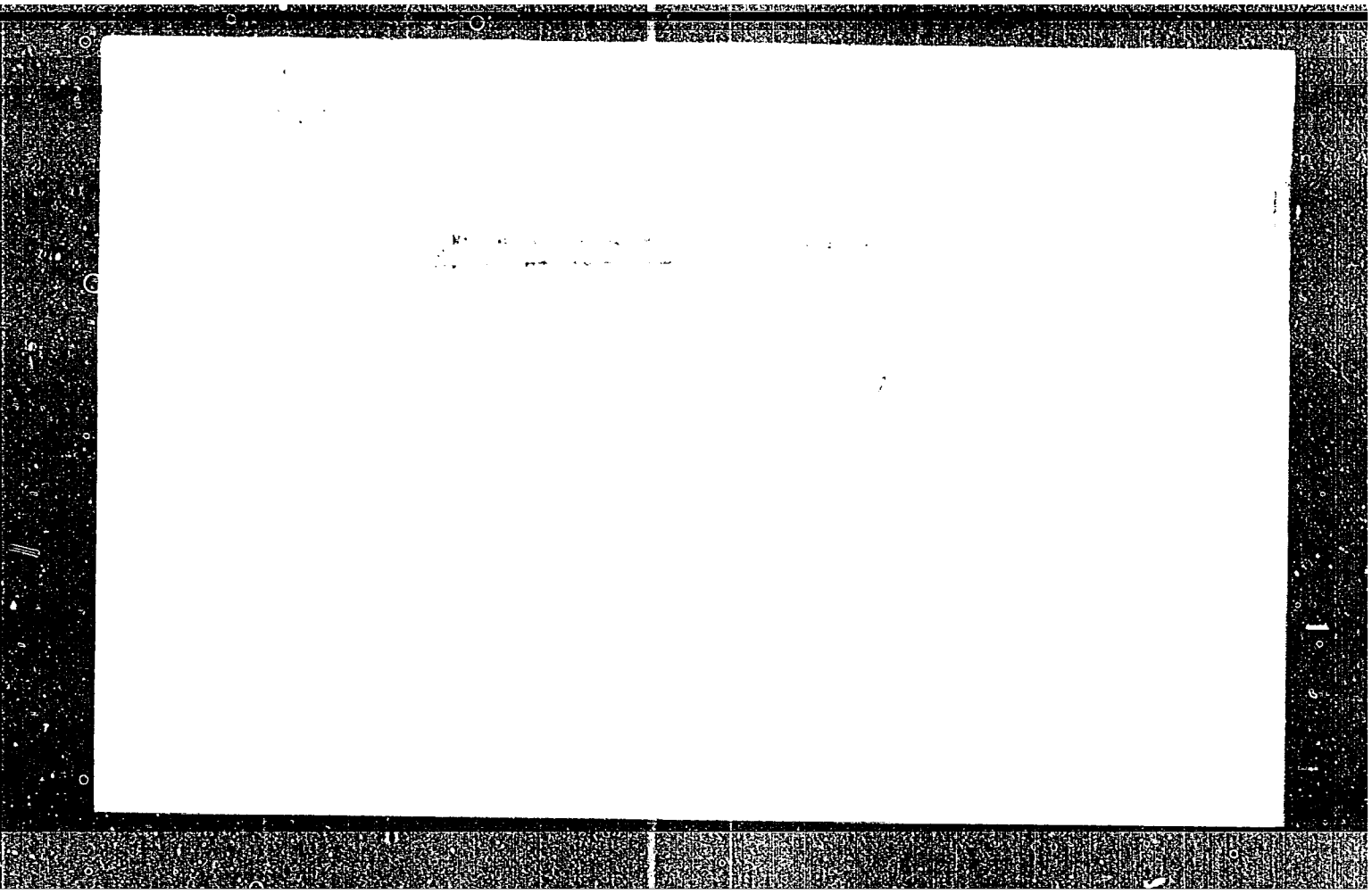
Treatment of patients with chronic coronary insufficiency at the Gurzuf Clinical Sanatorium. Voen.-med.zhur. no.7:39-43 Jl '59.
(MIRA 12:11)

(CORONARY DISEASES ther)
(BALNEOLOGY)

BAKSHIS, V.P.

Problem of hypertrophy of the right heart in patients after pneumonectomy. Sov.med. 23 no.11:75-79 N '59. (MIRA 13:3)

1. Iz fakul'tetskoy terapevticheskoy kliniki (nachal'nik - prof. V.A. Beyer) i 2-y fakul'tetskoy khirurgicheskoy kliniki Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova (nachal'nik - deystvitel'nyy chlen AMN SSSR P.A. Kupriyanov).
(PNEUMONECTOMY complications)
(HEART ENLARGEMENT etiology)



APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103120012-1"

BAKHSHIYAN, TS.A.

Combined gas and fuel oil burner for furnaces and boilers. Gaz. prom. no.5:24 My '57. (MLRA 10:5)
(Burners)

L 05094-67 EWT(d)/EWP(l) IJP(c) RM/GG

ACC NR: AP6013303 SOURCE CODE: UR/0413/66/000/008/0097/0098

AUTHORS: Bakshayev, A. I.; Vizun, Yu. I.; Yefimov, I. A.; Tarasov, L. G.

ORG: none

TITLE: A magnetic address decoder of a storage device with linear selection. Class 42, No. 180855 [announced by Institute of Precision Mechanics and Computational Technology, AN SSSR (Institut tochnoy mekhaniki i vychislitel'noy tekhniki AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 97-98

TOPIC TAGS: computer storage device, magnetic core storage, computer memory, memory address

ABSTRACT: This Author Certificate presents a magnetic address decoder of a storage device with linear selection. The decoder includes magnetic coordinate cores and a system of windings (see Fig. 1). The design increases the response time and simplifies the matching with semiconductor current shapers. The coordinate windings are made in the form of matched artifical delay lines. To provide these delay lines, capacitors are connected between the inductances (formed by the groups of windings of the coordinate cores) and the common busbar. Loads which are equal to the wave impedance of the delay lines are connected to the output of the lines.

Card 1/2

UDC: 681.142.07

BAKSHTANSKAYA, R.S.; POPOV, G.G., nauchno-tekhn. red.; RODOVSKAYA, M.V., otv. za vypusk; GROMOV, Yu.V., tekhn. red.

[Use of plastics and synthetic products in railroad transportation in the U.S.S.R. and in foreign countries; bibliographic index of Soviet and foreign publications] Primenenie plastmass i sinteticheskikh materialov na zheleznodorozhnom transporte v SSSR i za rubezhom; bibliograficheskii ukazatel' otechestvennoi i inostrannoi literatury, 1950-1960 gg. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 38 p. (MIRA 15:2)

1. Russia (1923- U.S.S.R.) Ministerstvo putey soobshcheniya. TSentral'naya nauchno-tekhnicheskaya biblioteka.
(Bibliography--Railroads--Equipment and supplies)
(Bibliography--Plastics)

BAKSHTANSKAYA, R.S., otv. za vypusk; DROZDOVA, N.D., tekhn. red.

[Railroad literature of the U.S.S.R. for 1961] Zheleznodorozhnaia literatura SSSR, 1961. Moskva, Transzheldorizdat, 1963. 458 p. (MIRA 17:2)

1. Russia (1923- U.S.S.R.) Ministerstvo putey soobshcheniya. TSentral'naya nauchno-tekhnicheskaya biblioteka.

BAKSHTANSKAYA, R.S.; RAKHMATULINA, N.D., inzh., nauchno-tekhn. red.; RODOVSKAYA, M.V., nauchno-bibl. red.; RODOVSKAYA, M.V., otv. za vypusk; USENKO, L.A., tekhn. red.

[Mechanization and automation of operations in locomotive operation, maintenance and repair in the U.S.S.R. and foreign countries; bibliography of Soviet literature, 1957-1960] Mekhanizatsiia i avtomatizatsiia v lokomotivnom khoziaistve v SSSR i za rubezhom; bibliograficheskii ukazatel' otechestvennoi literatury, 1957-1960 gg. Moskva, Transzheldroizdat, 1961. 38 p. (MIRA 15:5)

1. Russia (1923- U.S.S.R.) Ministerstvo putey soobshcheniya. TSentral'naya nauchno-tekhnicheskaya biblioteka.
(Bibliography—Locomotives—Maintenance and repair)

BAKSHTANOVSKAYA, K.S., red.

[Railroad literature of the U.S.S.R. for 1962] Zheleznodorozhnaia literatura SSSR, 1962. Moskva, Transport, 1964. 478 p. (MIRA 18:1)

BARSHTANSKIY, E.L.; NILOVA, O.I.

Feeding habit of young Oncorhynchus gorbuscha and Oncorhynchus keta in the White and Barents Seas. Trudy PMBI no.9:106-111 '65.
(MIRA 18:12)

1. Polyarnyy nauchno-issledovatel'skiy i proyektnyy institut morskogo rybnogo khozyaystva i okeanografii, Murmansk.

FILONOV, V.A.; BAKSHTAYEVA, I.A.

Distribution of radioactive elements in the formation waters of the Pripet fault. Dokl. AN BSSR 8 no.2:120-123 F '64.
(MIRA 17:8)

1. Institut geologicheskikh nauk Gosudarstvennogo geologicheskogo komiteta SSSR. Predstavleno akademikom AN BSSR G.V. Bogomolovym.

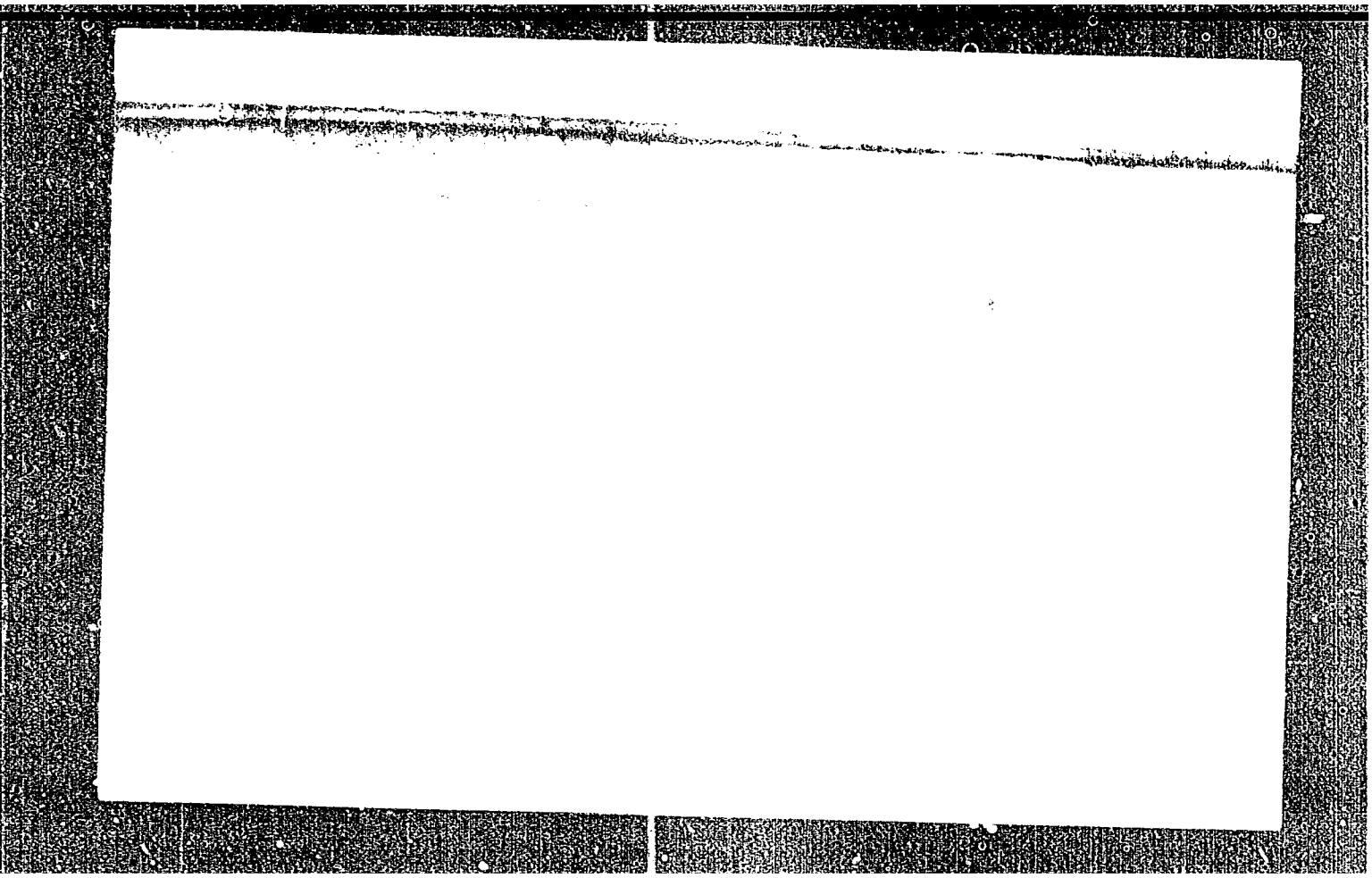
SARATOVKIN, Dmitriy Dmitriyevich; PRONOV, A.P., kandidat tekhnicheskikh nauk, retsenzent; BAKSHTEYN, S.Z., kandidat tekhnicheskikh nauk, retsenzent; SHPICHINETSKIY, S.S., redaktor; KAMAYEVA, O.M., redaktor izdatel'stva; ISLENT'YEVA, P.G., tekhnicheskiy redaktor

[Dendritic crystallization] Dendritnaia kristallizatsiia. Izd. 2-oe, ispr.i dop. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1957. 125 p. (MLRA 10:10)
(Solidification)

USHATINSKIY, N.A., kandidat tekhnicheskikh nauk; GOLUB, S.I.; BAKSHTEYN, V.M., kandidat tekhnicheskikh nauk.

Elimination of scale formation in the evaporation of solutions of sodium sulfate. Khim.prom.no.6:324-328 S '56. (MLRA 10:2)

1. Sverdlovskiy filial Nauchno-issledovatel'skogo instituta khimicheskogo mashinostroyeniya i Vsesoyuznyy nauchno-issledovatel'skiy institut galurgii.
(Sodium sulfates) (Evaporating appliances)



APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103120012-1"

BAKSOVA, R. A., and B. N. STEPANENKO, and Ye. M. AFANAS'YEVA

"On the chemical nature of a new polysaccharide"

The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms. Conference in Moscow. January 28 to January 30 1958.

(VMU SSSR No 6, 1958)

STEPANENKO, B.N., AFANS'YEVA, Ye.M., BAKSOVA, R.A.

Chemical nature of eremuran, a new polysaccharide from the roots of Eremurus regelii [with summary in English]. Biokhimiia 23 no.5:713-720 S-O '58 (MIRA 11:11)

1. Laboratoriya fiziologicheskoy khimii AN SSSR i Moskovskoy farmatsevticheskiy institut, Moskva.
(PLANTS,
Eremurus regelii, isolation & chem. of polysaccharide eremuran (Rus))
(POLYSACCHARIDES,
eremuran, chem. & isolation from Eremurus regelli (Rus))

MAKSOVA, N.A., MUKAKOVA, N.K., STEPANOVA, B.V., SLOBOZHANINA, L.V., VOLYNKINA, T.T., (USSR)

"The Reserve Heteropolysaccharides in Plants."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1962.

STEPANENKO, B.N.; BAKSOVA, R.A.

Production of crystalline d-mannose from a new raw material — the polysaccharide eremuran. Biokhimiia 26 no.5:855-858 S-O '61. (MIRA 14:12)

1. Institute of Biochemistry, Academy of Sciences of the U.S.S.R. and the 1st Medical Institute, Moscow.
(EREMURAN) (MANNOSE)

PETROV, K.A.; BAKSOVA, R.A.; KHORENOYANTS, I V.; SINOGLYKINA, L.P.; SKUDINA, T.V.

Properties of phosphinic acid anhydrides. Part 1: Monoalkyl(aryl) phosphonates. Zhur. ob. khim. 35 no.4:723-728 Ap '65.
(MIRA 18:5)

PETROV, K.A.; BAKSOVA, R.A.; KHORKHOYANU, L.V.

Properties of phosphinic acid anhydrides. Part 3: Reactions of anhydrides of phosphinic acids with olefin oxides. Zhur. ob. khim. 35 no.4:732-737 Ap '65.

(MIRA 18:5)

L 16000-66 EWP(j)/EWT(m) WW/WW

ACC NR: AT6004037 SOURCE CODE: UR/0000/65/000/000/0310/0313

AUTHOR: Petrov, K A.; Baksova, R. A.; Khorkhoyanu, L V.; Rebus, I. F. 23 22 B+1

ORG: None

TITLE: Properties of phosphonic anhydrides. Part 2: Synthesis and properties of ethylenediphosphonic anhydride

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Problemy organicheskogo sinteza (Problems in organic synthesis). Moscow, Izd-vo Nauka, 1965, 310-313

TOPIC TAGS: organic phosphorus compound, alcohol, phenol

ABSTRACT: The article presents data on the synthesis of ethylenediphosphonic anhydride and on a study of its reaction with monohydric and dihydric alcohols and phenols. The anhydride was obtained in almost quantitative yield in two ways: (1) controlled hydrolysis of ethylenediphosphonyl tetrachloride in chloroform with prolonged heating

$$n Cl_2(O)PCH_2CH_2P(O)Cl_2 + 2nH_2O \longrightarrow n(O_2PCH_2CH_2PO_2) + 4n\ HCl$$

and (2) reaction of the tetrachloride with tetraethyl ethylenediphosphonate taken in equimolar amounts:

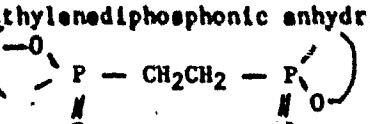
Card 1/2

L 16000-66

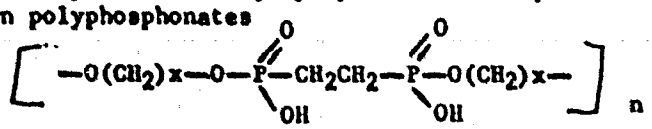
ACC NR: AT6004037

$$n Cl_2PCH_2CH_2PCl_2 + n(C_2H_5O)_2PCH_2CH_2P(OC_2H_5)_2 \rightarrow 2n(O_2PCH_2CH_2PO_2) + 4n\ HCl + 4n CH_2{=}CH_2$$

Ethylenediphosphonic anhydride is apparently a polymer with the formula



and consists of a vitreous hygroscopic mass insoluble in all organic solvents. It reacts readily with alcohols, glycols, and phenols. Acid esters of ethylenediphosphonic acid were obtained in good yields from reactions of the anhydride with ethyl, isooctyl, and sec-octyl alcohol and p-nitrophenol at 80—120C. Reaction of the anhydride with 1,3-propanediol and 1,6-hexanediol produced the heretofore unknown polyphosphonates



x = 3, 6

SUB CODE: 07 / SUBM DATE: 13Mar64 / ORIG REF: 003 / OTH REF: 002

Card 2/2

BAKST, A.S.

New design of couplings for air conduits. Der.prom. 7 no.3:28 Mr '58.
(MIRA 11:4)

1.TSentral'nyy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki dereva.
(Couplings)

DOLGOV, A.I.; BAKST, A.S.; EPSHTEYN, T.G.

Machine tools for making doweled doors. Der. prom. 7 no.4:17-19 Ap '58. (MIRA 11:5)

1.TSentral'nyy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki dereva.
(Doors) (Woodworking machinery)

DOLGOV, A.I.; BAKST, A.S.

New mechanisms for continuous production lines. Der.prom. 9 no.9:8-9 S '60. (MIRA 13:9)

1. Nauchno-issledovatel'skiy institut derevoobrabatyvayushchego mashinostroyeniya.
(Conveying machinery) (Furniture industry)

MAKOVSKIY, Nikolay Vasil'yevich; BYSTROV, G.P., doktor tekhn.nauk, retsenzent; BAKST, A.S., kand.tekhn.nauk, retsenzent; KAPUSTIN, I.I., doktor tekhn.nauk, prof., red.; GOSPODARSKAYA, T.N., red.izd-va; PARAKHINA, N.L., tekhn. red.

[Automation of technological processes in woodwork] Avtomatizatsiia tekhnologicheskikh protsessov v derevoobrabotke. Moskva, Goslesbumizdat, 1961. 397 p. (MIRA 14:12)
(Woodworking machinery) (Automatic control)

BAKTAI, Ferenc

With the Csepel metal workers. Sov. profsoiuzy 3 no.5:68-70 My '55. (MLRA 8:8)
(Csepel, Hungary--Steel industry)

BAKTAI, [illegible]

Geography & Geology

Szekelyek uzenik; romaniai utinaplo. Kossuth Konyvkiado, 1958 47 p.

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 4, April 1959

UNCLASSIFIED

BAKTAI, Gyorgy

Pictures from the 5th Congress of the Hungarian Sports Federation for National Defense. Radiotechnika 13 no.7: 2 of cover Jl '63.

BAKTAI, M.; FEYYESH, I.; KHORVAT, A.

Indications of solar activity in the annual rings of Pinus Tarnociensus of the Miocene. Astron.zhur. 41 no.2:413-414 Mr-Ap '64. (MIRA 17:4)

1. Kafedra astronomii universiteta im. Etvesha, Budapesht.

BAKTAI, Maria; FEJES, Istvan; HORVATH, Andras

Examination of the annual rings of the Pinuxylon Tarnociencis (Tuzson) Greguss. Foldt kozl 94 no.3:393-396 Jl-S '64.

BAKTAY, Ervin

Harbors-ships

DECEASED

1963

BAKTAY, Gyorgy; BUKOSZANE BARAN, Maria, dr.

Chemistry of aerosol preparations. Magy kem lap 19 no.9:465-469 S '64.

1. Cosmetic and Household Chemical Industry Enterprise, Budapest.

Hungary/Chemical Technology. Chemical Products and Their Application -- Fats and oils. Waxes. Soap. Detergents. Flotation reagents, I-25

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6378

Author: Baktay, Gyorgy

Institution: None

Title: Problems of Vegetable Oil Production

Original Publication: Olaj, szappan, kosmetika, 1955, 4, No 14-16

Abstract: Discussion of the problems the solution of which is needed by the vegetable oil industry in order to improve the technology of oil production and refinement, production of fatty acids and glycerol.

Card 1/1

Distr: 4E3d/4E2c(j)

Preparation and separation of chlorinated benzene derivatives of high boiling point. István Rusznák, Endre Marton, and György Baktay (Műszaki Egyetem, Budapest). Magyar Kém. Lapja 11, 123-5(1956).—Distn. by-products of the monochlorobenzene manuf. were studied with the purpose of developing a method for the sepn. of 1,2,4-trichlorobenzene (I) for the prepn. of phthalocyanine. The material contains ~59% Cl. It was distd. in vacuo (19 mm. Hg) at 32-80° to obtain the light portion; at the latter temp. p-dichlorobenzene pptd. At 81-152° the high-boiling portion was obtained. Both portions were then redistd. at atm. pressure. The light portion contained no I, the high-boiling portion contained ~60%. As the high-boiling portion represents 26% of the total distillate, it was attempted to increase I yield by chlorinating the light portion. Fe catalyst was used and the chlorination was conducted at 20-30° until sp. gr. reached 1.220 (20°) and at 55-65° until it reached 1.335 (50°). The I yield can be further increased by continuing the chlorination until reaching the sp. gr. 1.460 (50°). G. J. Ernyei

(Retyped clipped abstract)

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1/1